High Level Architecture

Managing the "Capricious FOM" Risk

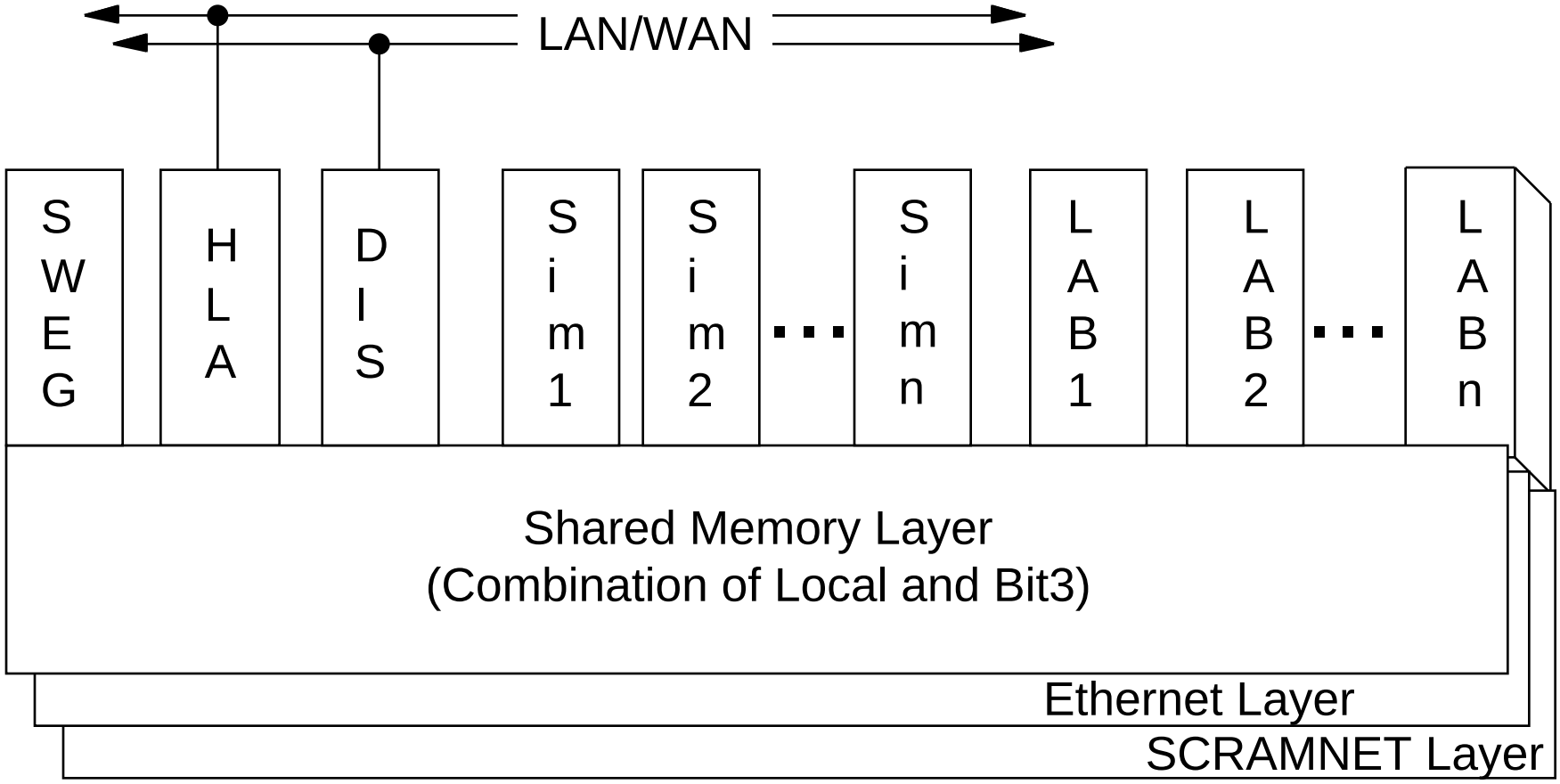
(An Architectural Approach)

Naval Air Warfare Center - Aircraft Division

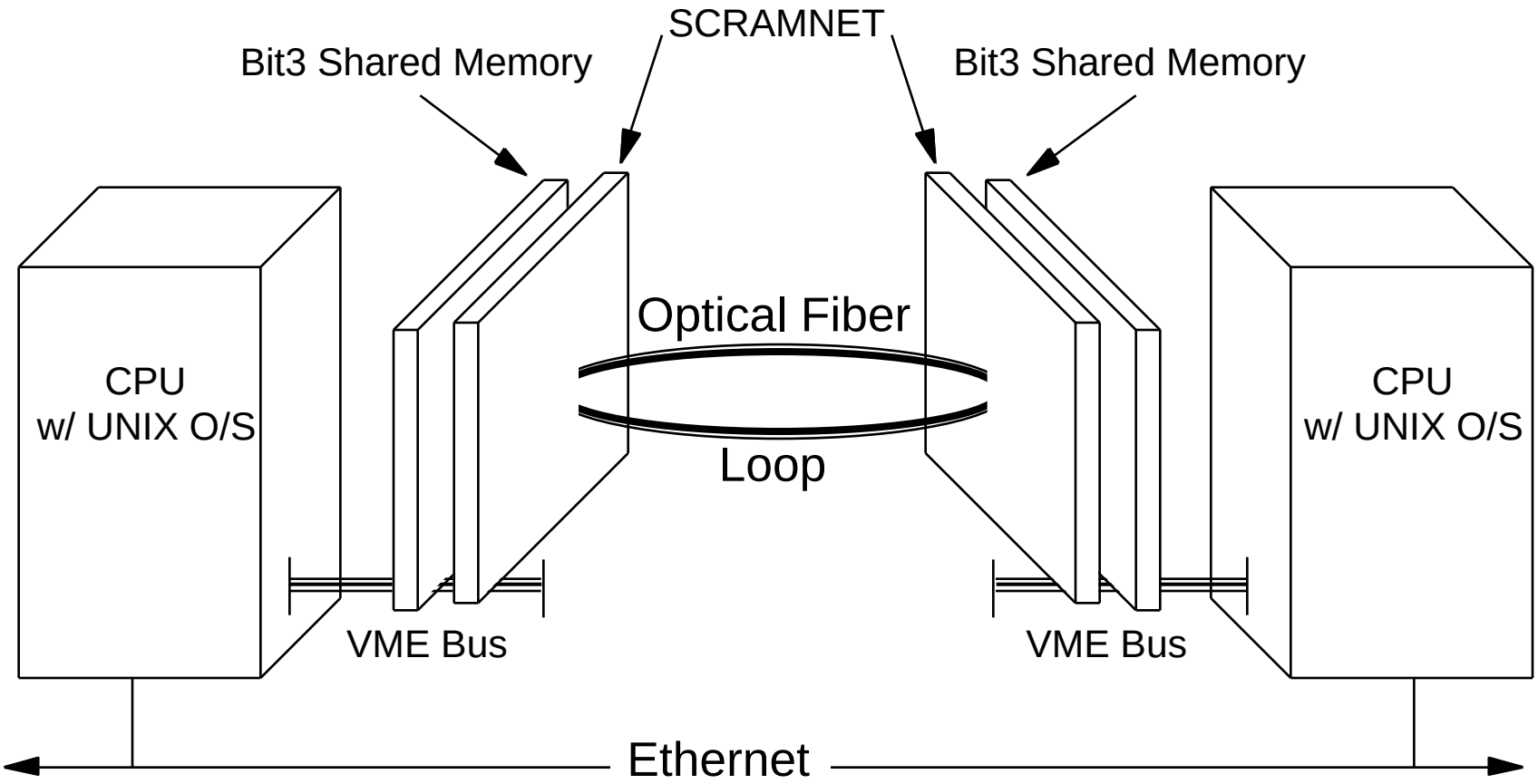
Atlantic Ranges & Facilities

Simulation/Stimulation Division

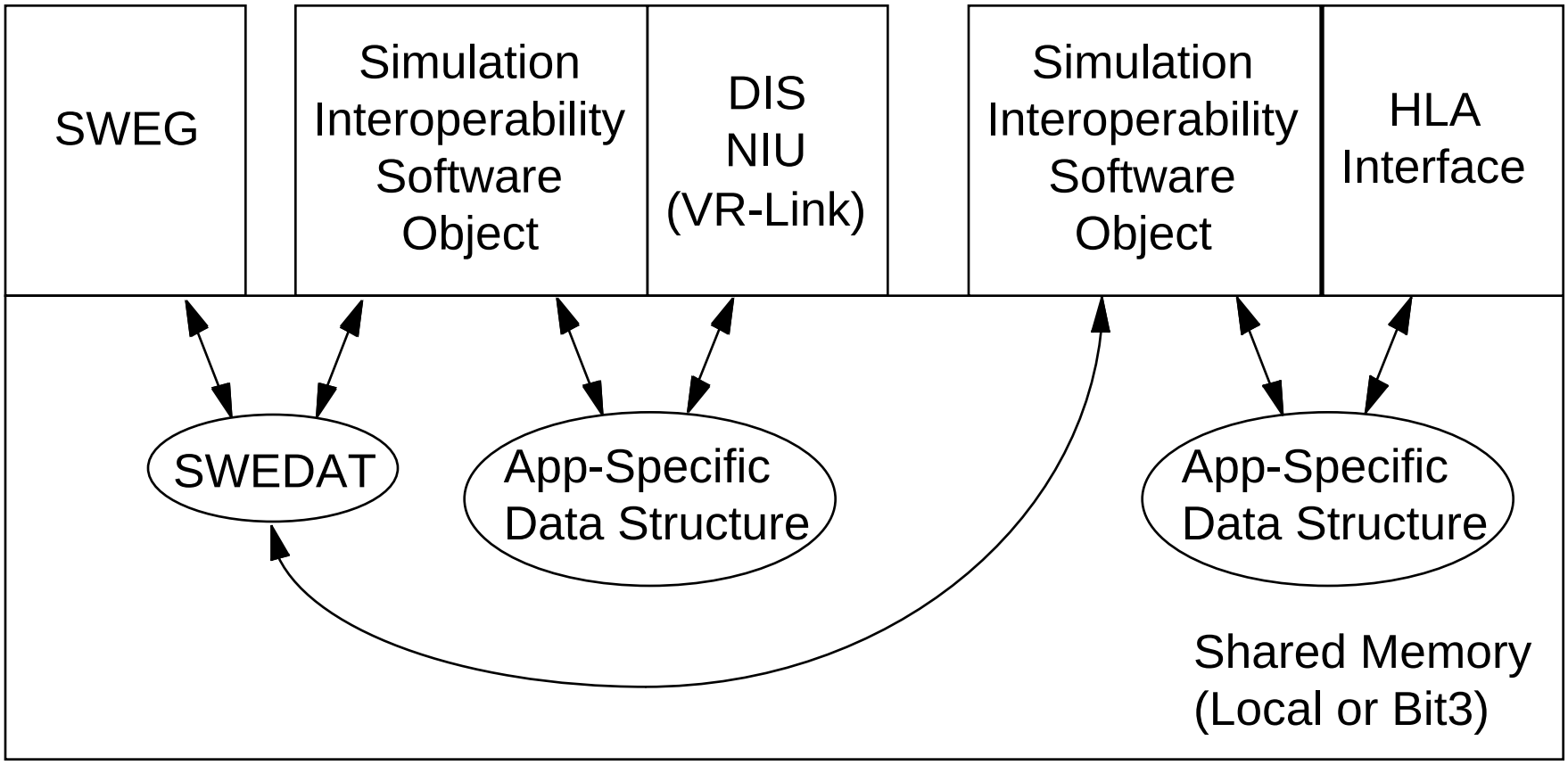
ACETEF Architecture
(Intra- & Inter-site)



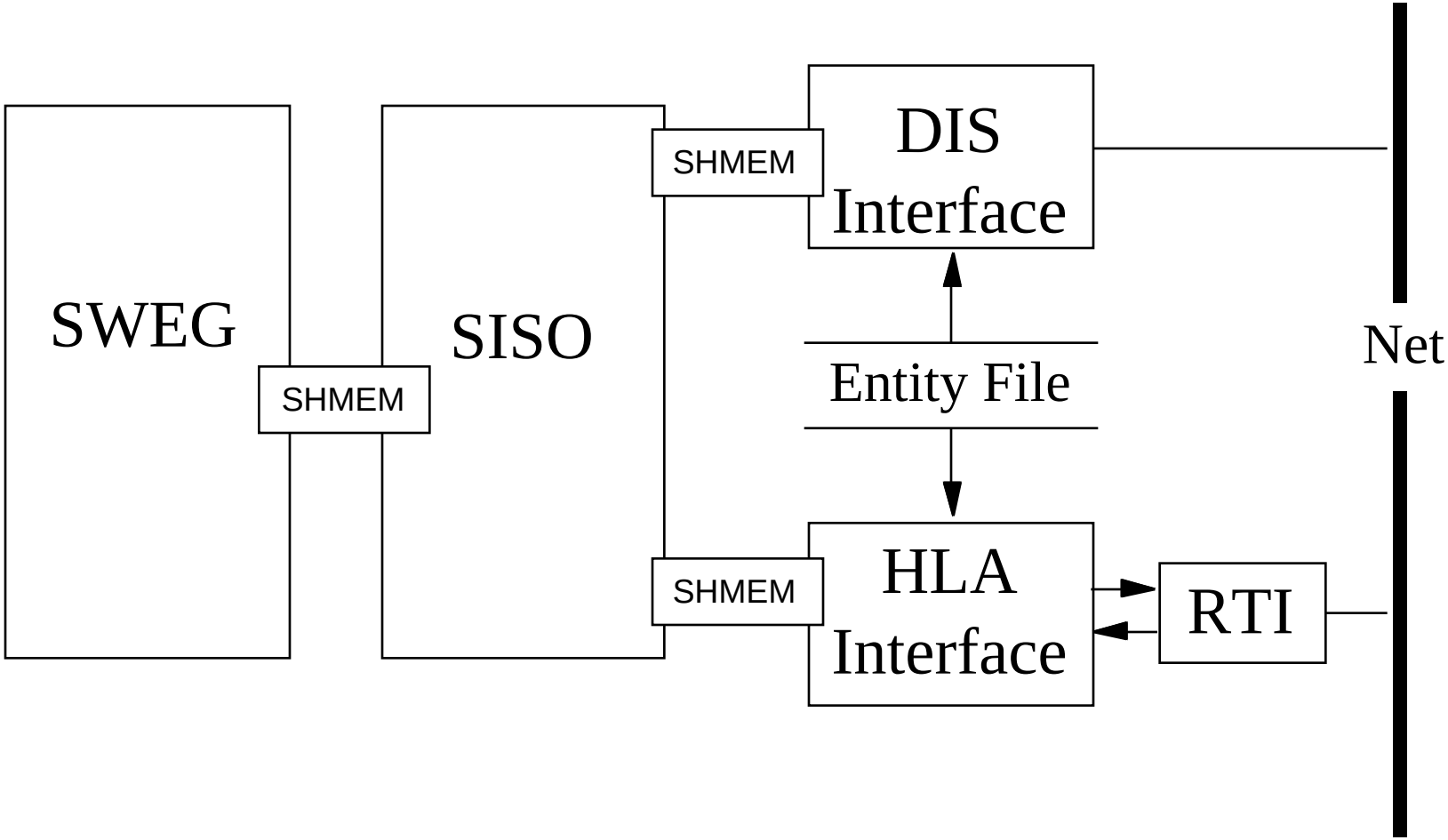
ACETEF Architecture (Intrasite)



ACETEF Architecture (Inter-Application)



SWEG to RTI


SWEG
SHMEM
SISO
SHMEM
DIS
Interface
Entity File
SHMEM
HLA
Interface
RTI
Net

Entity File Layout

SWEG Semantic Code	DIS Enumeration	HLA Object Class
710006	1.2.225.1.1.0.0	Airplane
710007	1.3.225.1.1.1.0	Boat
710006	1.2.225.1.1.0.0	MilitaryPlatform
710007	1.3.225.1.1.1.0	MilitaryPlatform

Interface Code

```
CASE ObjectClass OF
    Airplane:
        ProcessAirplane
    Boat:
        ProcessBoat
    MilitaryPlatform:
        ProcessMilitaryPlatform
    ELSE
        ProcessUnknown
```

Conclusions

- The ACETEF Solution is not appropriate for every situation
- Inheritance is nice; but performance is critical.
  - The OO nature of the OMT leads some to believe that classic OO philosophy should drive FOM creation. This is not the case. Those who cast FOMs *must* take into account how each FOM design decision will affect RTI-to-Federation interplay. This practice will yield a FOM which compromises “pretty for performance”.